

## Technical Memorandum

**To: Marjorie Blaine, U.S. Army Corps of Engineers, Los Angeles District**

**From: Elizabeth Goldmann and Robert Leidy, U.S. EPA, Region IX**

**Date: April 21, 2015**

**Re: Comments on the *Rosemont Copper Project Revised Habitat Mitigation and Monitoring Plan Permit No. SPL-2008-00816-MB* Revised September 26, 2014**

EPA is providing you with comments on the *Rosemont Copper Project Revised Habitat Mitigation and Monitoring Plan Permit No. SPL-2008-00816-MB* (HMMP) revised September 26, 2014. For purposes of this review, we have focused on the modifications to the mitigation proposal since Rosemont Copper Company's (Rosemont) last submittal dated April 1, 2014. These comments are in addition to the technical comments previously provided to the Corps.<sup>1</sup> Separately, EPA will be providing to the Corps a technical analysis/findings of the mitigation component at Sonoita Creek Ranch.

In summary, EPA has reviewed the HMMP and maintains that the mitigation proposed in the revised plan fails to offset mine impacts to aquatic resources in the Cienega Creek watershed. The HMMP consists of project elements not suitable as mitigation under §404 CWA. For example, mitigation credits are requested for the removal/revegetation of unnecessary roads and for the modification/maintenance of existing roads located in uplands. Mitigation credit is also requested for the repair of upland gullies and the removal of a horse corral.<sup>2</sup> As described below, Rosemont has not provided a measurable framework for how their proposed mitigation activities will result in improvement of specific aquatic functions on mitigation lands, nor have they demonstrated how these actions will compensate for the loss of acreage and function to 68.8 acres of waters of the United States within the Cienega Creek watershed.<sup>3</sup>

In reviewing the HMMP, we noted discrepancies in the document. It unclear whether Rosemont is seeking preservation credit at Sonoita Creek Ranch, Fullerton Ranch or Helvetia Ranch Annex North Parcels (Helvetia Ranch). According to the Executive Summary (pp. ES 2-6) and the Summary of MRSC Evaluation (pp. 47-48), mitigation does not include preservation credit, yet preservation credit is included in the Compensatory Mitigation section (pp. 6-8).

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<sup>1</sup> See EPA technical comments to the Corps dated January 25, 2013, February 25, 2014, April 9, 2014 and April 28, 2014.

<sup>2</sup> HMMP, p. 61-70.

<sup>3</sup>For example, with regard to aquifer depletion in the Avra Valley Subbasin Rosemont claims, "Further restoration or enhancement of upland areas and headwaters, including Fullerton ranch, that supply recharge to this area will continue to improve recharge and eventually lead to stabilization in groundwater recharge." HMMP, p. 13. Rosemont has not provided an analysis to support this claim.

## Status of Mineral Rights on Proposed Mitigation Parcels

According to Rosemont, the final compensatory mitigation package includes four components that provide conservation elements and opportunities for restoration, enhancement, establishment, and preservation of ephemeral waters. These sites consist of Sonoita Creek Ranch, Fullerton Ranch, Davidson Canyon Parcels, and the Helvetia Ranch.<sup>4</sup> As part of the mitigation plan, Rosemont will place a restrictive covenant on the parcels to serve as the site protection instrument.<sup>5</sup>

Mineral rights are an important consideration when determining the suitability of conservation lands as mitigation. For lands being considered as mitigation, a legal instrument should be in place that prohibits mineral exploration and extraction activities on the mitigation site. Mitigation parcels in a “split estate” where Rosemont owns the surface estate, but does not have the right to restrict the mineral estate, may make the parcel incompatible with long-term conservation due to the threat of mineral development.<sup>6</sup> Rosemont proposes 4,827 acres as mitigation, but ownership/lease information on both the surface rights and mineral rights has not been provided.<sup>7</sup> EPA recommends the Corps obtain the status of the mineral estate for each mitigation parcel proposed by Rosemont as mitigation.

### Helvetia Ranch

Helvetia Ranch is located on the west side of the Santa Rita Mountains outside of the Cienega Creek watershed. Rosemont states the site has been impacted by grazing and has poorly maintained roads. According to the HMMP, Rosemont will fence the 939-acre parcel to exclude livestock grazing, remove some roads and improve the unpaved access road resulting in the rehabilitation of 39.1 acres of ephemeral channels and enhancement of 271.5 acres of riparian buffer habitat.<sup>8</sup>

EPA does not believe Helvetia Ranch is a suitable compensatory mitigation site for the following reasons: 1) Helvetia Ranch is not located in the same watershed as mine impacts; 2) Rosemont is

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<sup>4</sup> HMMP p. ES-2.

<sup>5</sup> HMMP, p. 24.

<sup>6</sup> *In split estate situations, the surface rights and subsurface rights (such as the rights to develop minerals) for a piece of land are owned by different parties. In these situations, mineral rights are considered the dominate estate, meaning they take precedence over other rights associate with the property, including those associated with owning the surface.* [www.blm.gov/wo/st/en/prog/energy/oil-and-gas/best-management-practices/split-estate](http://www.blm.gov/wo/st/en/prog/energy/oil-and-gas/best-management-practices/split-estate). p. 1.

<sup>7</sup> The minerals rights may be reserved to the federal government and/or the minerals may also be subject to unpatented mining claims in which the federal government gives the owner of the unpatented mining claim rights to the minerals. In a *Rosemont Copper EPA Briefing* document dated May 31, 2012, Rosemont identified Rosemont Land Ownership, including 800 acres of ranching property containing unpatented mining claims. A BLM mining claim geographic report (3/20/2015) lists unpatented mining claims within USGS sections where mitigation parcels are located.

<sup>8</sup> HMMP p. 67-69.

requesting mitigation credit for activities that are not compensatory; 3) there is no analysis regarding the current or projected future functional condition of the property to demonstrate enhancement/rehabilitation of the site; and 4) Helvetia Ranch will be impacted by the proposed Rosemont mine and potential future mining activities.

***Rosemont has not provided an analysis of the functional condition of the property***

Rosemont has not provided a measurable framework for how each of their proposed mitigation activities will result in improvement of specific functions on Helvetia Ranch. Literature reviews and general qualitative descriptions presented by Rosemont are of little utility in determining the actual functional gain of their proposed mitigation actions to the aquatic ecosystem on Helvetia Ranch. What is needed is a site specific assessment of existing functions at Helvetia Ranch and improvement to each function supported by *measurable/quantifiable* metrics directly attributable to each of the proposed management actions.

Without a quantitative baseline and post-mitigation functional assessment of the condition of the aquatic and upland resources on Helvetia Ranch, it is not possible to assign meaningful or scientifically justified mitigation credit to their proposed management actions.

***Helvetia Ranch proposed for conservation under the Endangered Species Act***

The Final Environmental Impact Statement (FEIS) identifies Helvetia Ranch as habitat mitigation for Chiricahua leopard frog, ocelot and jaguar, as well as Pima Pineapple Cactus in accordance with the requirements of the USFWS Biological Opinion (BO).<sup>9</sup> These parcels are already designated for conservation under the Endangered Species Act. In addition, it is unclear whether mitigation proposed at Helvetia Ranch (*e.g.*, boundary fencing) would be contrary to the BO or conversely, whether conditions in the BO would restrict or prohibit any potential mitigation measures under the 404 permit.

***Location of Helvetia Ranch relative to Rosemont and potential future mining of additional Rosemont Deposits***

Along with the proposed Rosemont mine, Rosemont's three mineral deposits; Peach-Elgin, Broadtop Butte and Copper World are located east of Helvetia Ranch.<sup>10</sup> In particular, Peach-Elgin and Copper World are located on the west side of the Santa Rita Mountains in close proximity to Helvetia Ranch. Direct and indirect impacts to aquatic resources at Helvetia Ranch from the proposed Rosemont mine as well as impacts associated with the potential future mining of these additional mineral deposits make this site unsuitable as compensatory mitigation.<sup>11</sup>

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<sup>9</sup> FEIS: Volume 6-Appendix A, Biological Opinion. p. 50 and Volume 5-Appendix B, Mitigation and Monitoring Plan (FS-BR-07) p. B-34.

<sup>10</sup> *Rosemont Copper Project CWA Section 404(B)(1) Alternatives Analysis (SPL-2008-00816-MB)* dated April 2013 pp 23-26.

<sup>11</sup> In determining the ecological suitability of a mitigation site, the district engineer must consider factors such as compatibility with adjacent land uses, development trends and the relative locations of the impact and mitigation sites in the stream network (33 CFR 332.3(d)).

## Rehabilitation v. Enhancement

Throughout the HMMP, Rosemont incorrectly defines their proposed mitigation when calculating credits and fails to provide the technical documentation necessary to demonstrate the mitigation activities proposed will result in any meaningful rehabilitation or enhancement.

For example, Rosemont proposes rehabilitation credit for the removal of livestock grazing and fencing. If demonstrated, activities such as these may heighten/intensify or improve selected aquatic resource functions and are considered enhancement. Rehabilitation requires a general improvement in the suite of functions performed by the aquatic resource.<sup>12</sup>

In addition, the request for rehabilitation/enhancement credit of existing riparian buffer habitat is duplicative, if the site is being preserved. According to the 2008 Mitigation Rule, buffers are considered as mitigation where they are necessary to ensure the long term viability of aquatic resources.<sup>13</sup> This is especially important in urban areas to ensure ecological sustainability of the aquatic resources. At the proposed mitigation sites, the buffer does nothing to prevent perturbation of the aquatic resources above and beyond what the preservation of the site can accomplish.<sup>14</sup>

Lastly, it is ecologically inequitable to seek over 800 acres of buffer credit as compensation toward impacts to 68.8 acres of waters without first providing compensation for the 4074 acres of buffer habitat that will be impacted by the proposed mine.

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<sup>12</sup> The Preamble states, *Rehabilitation differs from enhancement in that rehabilitation is intended to result in a general improvement in the suite of the functions performed by a degraded aquatic resource. In contrast, enhancement activities focus on increasing one or two functions, rather than all the functions being performed by an existing resource* (40 CFR Part 230, p. 19624).

<sup>13</sup> See 33 CFR 332.3(i).

<sup>14</sup> Buffer is defined as *...an upland, wetland, and/or riparian area that protects and/or enhances aquatic resource functions associated with wetlands, rivers, streams, lakes, marine, and estuarine systems from disturbances associated with adjacent land uses* (33 CFR 332.2).